

# METHODS AND SYSTEMS FOR ANALYZING FLUTTER TEST DATA USING NON-LINEAR TRANSFER FUNCTION FREQUENCY RESPONSE FITTING

## ABSTRACT OF THE DISCLOSURE

5       Methods and systems for analyzing flutter test data using non-linear transfer function frequency response fitting are provided. In one embodiment, a plurality of data points are read, with each data point representing a motion of an aeroelastic structure (e.g. an aircraft surface) at a different location. A closed form fit to the plurality of data points is performed to obtain an initial curve fit condition. At least one non-linear transfer function frequency  
10      response curve fit is then performed to the plurality of data points.



25315

PATENT TRADEMARK OFFICE

BOEI-I-1184AP

- 17 -

BLACK LOWE & GRAHAM PLLC

816 Second Avenue  
Seattle, Washington 98104  
206.381.3300 • F: 206.381.3301